Remarks on the Bryozoan Genera *Spiroporina* Stoliczka and *Haswellina* Livingstone and their Genotypes

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Abstract

Several modern writers have erroneously accepted the view that the genotypes of *Spiroporina* Stoliczka, 1865 and *Haswellina* Livingstone, 1928. are conspecific, and that the latter genus must be suppressed in favour of the former. It is here maintained that these genotypes are distinct species and belong to different families. *Spiroporina* is shown to be a synonym of *Porina* d'Orbigny, 1852, and must lapse, while *Haswellina* is reinstated as a valid genus. Revised synonymies and diagnoses of the genera concerned are given.

The genus *Spiroporina* was founded by Stoliczka (1865, p. 103). He described at the same time a new fossil species from the Altonian (Lower Miocene) beds at Orakei Bay, New Zealand—*Spiroporina vertebralis* Stoliczka (1865, p. 106, Pl. 17, Figs. 6, 6a, 7), but placed it in the Cyclostomata. Waters (1881, p. 334), however, demonstrated the cheilostomatous nature of this fossil. The genus *Haswellia* was instituted by Busk (1884, p. 171) to include two recent species—*Myriozoum australiense* Haswell (1881, p. 43, Pl. 3, Figs, 9-11) and *Haswellia auriculata* Busk (1884, p. 173, Pl. 24, Figs. 10 A-D). Livingstone (1928, p. 71) later proposed the new name *Haswellina* to replace *Haswellia* Busk, pre-occupied by *Haswellia* Miers (1884, p. 311).

Canu (1913, pp. 144, 145) in a short diagnosis of *Haswellia* Busk quoted the two recent species just mentioned as "types" of this genus. He also affirmed that *Haswellia australiensis* (Haswell), 1881 and *Spiroporina vertebralis* Stoliczka, 1865 are synonyms recognising the former, although somewhat doubtfully, as a valid species. "Il me semble," he said, "que les vocables générique et spécifique de Stoliczka devraient avoir droit de priorité, mais cet auteur l'avait si mal etudiée qu'il la classait dans les cyclostomes". If the two species are conspecific, as Canu believed, he should have recognised *Spiroporina vertebralis* as the valid species even though Stoliczka had placed it in the Cyclostomata. It will be shown later, however, that these two species are, on the contrary, quite distinct; they belong to different families, and the question of priority is not involved.

That Canu, as well as Bassler (1917, p. 58), still accepted the validity of *Haswellia australiensis* is shown by the fact that they selected this species as the genotype of *Haswellia* Busk. Bassler (1935, p. 205) later abandoned this view. He accepted the opinion of Canu (1913) and carried it to its logical conclusion, as the latter writer had not done. He selected *Spiroporina vertebralis* as the genotype of *Spiroporina* Stoliczka, and agreed with Canu that *Haswellia australiensis* Haswell, 1881 (the genotype of *Haswellia* Busk, 1884) and *Spiroporina vertebralis* Stoliczka, 1865 (the genotype of *Spiroporina* Stoliczka, 1865) are synonyms. His selection of the latter species as the genotype of *Spiroporina* therefore, apparently, invalidates *Haswellia* and its later amendment *Haswellina*. As already indicated, this conclusion is not justified as the two genotypes are distinct species. Brown (1952, p. 212) supported Bassler in his suppression of *Haswellina* in favour of *Spiroporina* but his diagnosis of the latter genus was based, not on the genotype *Spiroporina vertebralis* but possibly on some species of *Haswellina*. Bassler (1953, p. 199) in his latest work still maintains the validity of *Spiroporina* against *Haswellina*.

The conclusions of the writers mentioned above are based on the erroneous assumption that *Spiroporina vertebralis* and *Haswellina australiensis,* species with a somewhat similar zoarial habit, are synonymous. This is not the case; the species are quite distinct and belong to different families. *Spiroporina vertebralis* with its circular peristome supporting a number of small rounded avicularia and its median ascopore opening into the body-cavity is a true *Porina* d'Orbigny, 1852, and a member of the family Porinidae (see Brown, 1952, p. 193). *Haswellina australiensis* with its paired peristomial avicularia and its schizoporellid orifice is a member of the family Schizoporellidae. *Spiroporina* Stoliczka, being a synonym of *Porina* d'Orbigny is therefore invalidated and *Haswellina* Livingstone is reinstated as a valid genus.

Family PORINIDAE

Porina d'Orbigny, 1852.

1852. *Porina* d'Orbigny, p. 432.
1865. *Porina* Stoliczka, p. 134.
1865. *Spiroporina* Stoliczka, p. 103.
1880. *Porina* Tenison-Woods, p. 25.
1880. *Spiroporina* Tenison-Woods, p. 23.
1880. *Porina* Hincks, p. 227.
1895. *Porina* MacGillivray, p. 103.
1913. *Acropora* Canu, p. 136.
1935. *Porina* Bassler, p. 175.
1935. *Spiroporina* Bassler, p. 205 (in part).
1952. *Porina* Brown, p. 191.
1952. *Spiroporina* Brown, p. 212 (in part).
1953. *Porina* Bassler, p. 193.
1953. *Spiroporina* Bassler, p. 199 (in part).

Genolectotype (selected by Lang, 1917, p. 172): *Eschara gracilis* Lamarck, 1816, p. 176. Recent.

Zoarium free, erect, branching, the branches cylindrical or lobate. Frontal wall perforated. Orifice rounded. Peristome circular or slightly elliptical, salient, subtubular, suporting several small, rounded avicularia. Ascopore median, opening into the body-cavity.

Family SCHIZOPORELLIDAE

Haswellina Livingstone, 1928.

1865. not *Spiroporina* Stoliczka, p. 103.
1884. *Haswellia* Busk, p. 171 (pre-occupied).
1909. *Haswellia* Levinsen, pp. 296, 297.
1913. *Haswellia* Canu, p. 144.
1917. *Haswellia* Canu and Bassler, p. 58.
1920. *Haswellia* Canu and Bassler, p. 516.
1928. *Haswellina* Livingstone, p. 71 (new name for *Haswellia* Busk, pre-occupied by *Haswellia* Miers, 1894, p. 311).
1935. *Spiroporina* Bassler, p. 205 (in part).
1952. *Spiroporina* Brown, p. 212 (in part).
1953. *Spiroporina* Bassler, p. 199 (in part).

Genolectotype (selected by Canu and Bassler, 1917, p. 58); *Myriozoum australiense* Haswell, 1881, p. 43, Pl. 3, Figs. 9-11. Recent. Queensland.

Zoarium free, erect, dichotomously branching, the branches more or less cylindrical, zooecia opening all round the branch. Orifice arched distally, with a median sinus in the proximal margin. Avicularia paired, placed laterally on the peristome on processes which sometimes coalesce above the orifice to form a spiramen. Ovicells hyperstomial, immersed in the distal zooecium.

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